

REMARKS

Applicants have carefully considered the August 21, 2009 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-12 are pending in this application.

In response to the Office Action dated August 21, 2009, claims 8 and 9 have been amended to address the rejections under 35 U.S.C. § 112, second paragraph. The drawings have been amended to address the drawing objection. No new matter is introduced by this amendment. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments and related discussion thereof in the written description of the specification.

At the very least, this Amendment reduces the number of issues for appeal, by amending the drawings figures in response to the drawing objection and amending the claims in response to the second paragraph rejection under 35 U.S.C. § 112. Accordingly, entry of the foregoing amendment under 37 C.F.R. § 1.116 is solicited

Applicants submit that the present Amendment does not generate any new matter issue. Entry of the present Amendment is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Claims 8-9 were rejected under 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejection are solicited in view of the foregoing amendments to claims 8 and 9 which are believed to address the issue raised by the Examiner at page 4 of the Office Action.

Indefiniteness under the second paragraph of 35 U.S.C. § 112 is a question of law.

*Tillotson Ltd. v. Walbro Corp.*, 831 F.2d 1033, 4 USPQ2d 1450 (Fed. Cir. 1987); *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 806 F.2d 1565, 1 USPQ2d 1081 (Fed. Cir. 1986). Accordingly, in rejecting a claim under the second paragraph of 35 U.S.C. § 112, the PTO is required to discharge its initial burden for providing a basis in fact and/or cogent reasoning to support the ultimate legal conclusion that one having ordinary skill in art, with the supporting specification in hand, would not be able to reasonably ascertain the scope or protection defined by the claim. *In re Cortright*, 165 F.3d 1353, 49 USPQ 2d 1464 (Fed. Cir. 1999). Consistent judicial precedent holds that reasonable precision in light of the particular subject matter involved is all that is required by the second paragraph of 35 U.S.C. § 112. *Miles Laboratories, Inc. v. Shandon, Inc.*, 27 USPQ 2d 1123 (Fed. Cir. 1993); *North American Vaccine, Inc. v. American Cyanamide Co.*, 28 USPQ 2d 1333 (Fed. Cir. 1993); *U.S. v. Telecommunications, Inc.*, 8 USPQ 2d 1217 (Fed. Cir. 1988). Applicant stresses that a patent specification must be viewed through the eyes of one having ordinary skill in the art. *Miles Laboratories, Inc. v. Shandon, Inc.*, *supra*.

Claim 8 has been amended to clarify that the average movement distance of the turn-back location of reciprocating movement each time in the one set of operation is about  $1/(m+1)$  ( $m$  is a natural number) the burner interval. Thus, it is believed the rejection is moot.

In claim 9, the term “assuming” has been removed from the claim. Claim 9 has been further amended to describe that A is an average movement distance in millimeters (mm) of the turn-back location of reciprocating movement each time in one set of operation, and D is an average reciprocating movement distance in millimeters (mm) in one set of operation, and A falls within a range of 5 to 60mm, and D falls within a range of  $4 \times A \leq D \leq 240$ .

As described at [0038] of the published version of the application, the average reciprocating movement distance in one set means the average distance of reciprocating

movement in which the total movement distance in one set is divided by the number of reciprocations in one set. As further defined at paragraph [0039], the turn-back location of reciprocating movement means the location at which the starting rod is turned back from the outward path (where the burner is relatively moved in the direction away from the initial position) to the homeward path (where the burner is relatively moved in the direction to the initial position).

Accordingly, one having ordinary skill in the art would not have difficulty understanding the scope of the presently claimed invention, particularly when reasonably interpreted in light of the supporting specification. Therefore, it is respectfully submitted that the imposed rejection 35 U.S.C. § 112, second paragraph is not legally viable and hence, Applicants solicit withdrawal thereof.

Claims 1-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tobisaka et al. (EP 1 065 175, hereinafter “Tobisaka”). Applicants traverse.

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tobisaka in view of Rau et al. (U.S. Pat. No. 4,045,198, hereinafter “Rau”). Applicants traverse.

Independent claim 1 describes, in pertinent part, a glass particle deposited body manufacturing method wherein an average reciprocating movement distance of the one set is less than double a burner-to-burner interval. As described at numbered paragraph [0038] of the published version of the present application, the “average reciprocating movement distance in one set” means the average distance of reciprocating movement in which the total movement distance in one set is divided by the number of reciprocations in one set. Applicants submit that Tobisaka does not disclose or remotely suggest “an average reciprocating movement distance in one set is less than double a burner-to-burner interval.”

Initially, it is noted that the numeric values recited by the Examiner at page 4 of the present Office Action differ from those first recited in the March 3, 2009 Office action. Specifically, in the present Office Action, the Examiner stated that the interval between the burners is 175 mm (150 mm in the previous Office Action), the average reciprocating movement distance is 300mm (60 mm in the previous Office Action), and therefore, Examiner concluded that the average reciprocating movement distance is less than twice the burner intervals. See page 4 of the Office Action.

As describe above, the specification clearly defines that the average reciprocating movement distance is defined as “the average distance of reciprocating movement in which the total movement distance in one set is divided by the number of reciprocations in one set”. [0038] of the published version of the application. In view of the previous Office Action and page 5, lines 2-6 of the present Office Action, it would appear that the Examiner considers a total movement distance to be a total movement distance of a turn-back location. However, since “the average reciprocating movement distance in one set” is clearly defined in the present specification at [0038], the Examiner’s interpretation is improper and inconsistent with Applicants’ supporting disclosure.

Turning to the prior art, in view of Fig. 3A of Tobisaka (EP 1 065 175 A1), the total movement distance is about 300 mm x 11 reciprocations, and the number of reciprocations in one set is 11. Then, the average reciprocating movement distance is about 300 mm. Thus, in view of Fig. 3A of Tobisaka, the interval between the burners is **not** 175 mm as suggested by the Examiner, but about 150 mm, and the average reciprocating movement distance corresponds to about two times intervals between the burners.

Namely, Tobisaka is distinct from the present claimed subject matter in which an average

reciprocating movement distance in one set is less than double a burner-to-burner interval. Thus, the Examiner's rejection with respect to independent claim 1 is not legally viable and should be withdrawn. If any independent claim is non-obvious under 35 U.S.C. § 103(a), then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Thus, absent the present disclosure as a template, one of ordinary skill in the art would not have derived from the teachings of Tobisaka, an average reciprocating movement distance in one set being less than double a burner-to-burner interval.

Furthermore, the Examiner's attention is invited to Fig. 3A of Tobisaka, wherein a taper portion is substantially as long as the burner interval. See also, "TOTAL LAYER QUANTITY" in Fig. 3B of Tobisaka. Therefore, the taper portion of Tobisaka is substantially as long as the conventional art described in Fig. 8 of the present application. Accordingly, a result of shortening a taper portion, as in the present claimed subject matter, is not achieved in Tobisaka.

### **Conclusion**

It is believed that all pending claims are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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